For
The Right Honble Sir Charles Th. Metcalfe G.C.B.
Governor-General of British North America &c &c &c

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BRIEF REMARKS

On "The Report" laid before the Government of New-Brunswick by the Medical Commission appointed by the Lieutenant Governor to investigate the nature, causes, &c. of a disease termed Leprosy, *prevailing in certain French Settlements in that Province, bordering on the Gulf of Saint Lawrence. By* Alexander Boyle, *M. D.*

A representation having been made to the Lieutenant Governor of New-Brunswick, that a disease of a highly malignant and loathsome nature, receiving the name of *Leprosy*, had been discovered among the inhabitants of certain French settlements in the Counties of Gloucester and Northumberland, in that Province; a Commission, composed of four Medical Gentlemen and the French Clergyman residing in that district, was appointed for the purpose of investigating its nature and causes; and suggesting such measures as might be judged necessary for its prevention.—The Commission entered on this enquiry in March last, and the result is now before the public; and a sum of £1000 has been granted by the Provincial Legislature, to enable the Government to carry into effect the measures proposed.

As they have "unanimously recommended the erection of a Lazaretto, "the removal of the sick, and their strict seclusion in that establishment," as means necessary to guard against the extension of this malady, which they consider as not only hereditary, but *contagious;* I have been induced to examine some of the more prominent facts which they have brought forward in support of this opinion; with the view of determining how far it is expedient, on this occasion, and on the grounds exhibited, to have recourse to measures involving extreme hardship on individuals, and not devoid of injury to society, and which ought never to be adopted under the sanction of causes which admit of doubt;—and with what probability of success those measures are calculated to accomplish the end proposed.

It may, in the first place, be observed, that much confusion has been introduced into medical writings, in consequence of doubts respecting the disease to which the name of *Leprosy*, more properly belongs; arising, as is supposed, from the inaccuracies of the translations of the Greek and Arabian authors who treat of this subject, and who have sometimes described, under the same title, three different affections, very distinct in

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character, namely, the Hebrew Leprosy, a scaly disease; the Elephant, or Barbadoes leg; and the "Tubercular" disease, now under consideration. It is, however, at present unnecessary to enter farther upon this subject, as the disease in question must be viewed under the aspect presented to us by the cases given in the "Report," where it is classed under this last denomination: and, as observations of *modern* date have removed much of the perplexity by which it was obscured, there is less difficulty in assigning to each its proper place in nosological nomenclature.

The facts collected, and which form the subject of the official document, are interesting; and the cases are detailed with a degree of accuracy and clearness, leaving no doubt as to the existence of a disease which has all the characteristic symptoms of the "Tubercular Elephantiasis" of modern nosologists, the "Juzam" of the Arabians, and the "Lepra Græcorum" of the middle ages, by which its identity is fully established, and which, therefore, need not now be repeated.

It is stated in the "Report," that "no *positive* conclusion could be drawn as to its original appearance in this quarter;" but, that, according to the information that was received from the oldest settlers, the first case occurred in the person of Ursule Laudre, about the year 1817, nineteen years after her marriage with Joseph Benoit, of Tracadie, a small French settlement situated in a part of this Province, bordering on the Gulf of Saint Lawrence, and where she went to reside after her marriage. Her father, mother, and their children, *nineteen* in number, appear, with the exception of Ursule alone, to have been perfectly healthy. She was married about the year 1798 or 1799, and having been affected ten years *before* her husband, (for, it appears, he also became affected with it,) it would be absurd to suppose that she possibly could have received the infection from *him;* neither can we suppose that he could have contracted it from her, for he continued free from it until three years before her death, which happened in 1829; a period of twenty-six years after their marriage, and of his having lived with her about ten years *after* she had shewn all its unequivocal symptoms. After the birth of her fifth child, Ursule ceased to bear children; and it is stated that, from that time, her health continued to decline for six or eight years, when the disease was no longer doubtful.

Upon the whole, other facts stated in the "Report" are not more favorable to the existence of *contagion* as a cause of this disease, than those already mentioned; for, it is not shewn from whom Ursule received

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the infection, nor is it proved that she communicated the disease to any one, either by direct contact or through the medium of substances imbued with a contagious principle. There is, indeed, no sort of analogy, as far as those facts go, between this disease and those of a contagious nature; in most of which, we can, almost, as it were, detect the contagion in its passage; and it is only by analogy we can reason on the subject. The latent period in contagious diseases is never long—being only two or three days, sometimes less, and seldom exceeding three weeks; whereas, in the present instance, several years of continued intercourse intervened from the first communication with the infected person to the time of its appearance in the individual exposed.

As it is admitted by all that "Tubercular Elephantiasis," or the Greek Leprosy, as it is sometimes called, is an *hereditary* disease, and, like Scrofula, may pass one generation and appear in the next, when concurring causes favour its development; the taint in one of the nineteen children of Laudre *pere* (Ursule) may have been derived from a source to which, at this distance of time, it cannot, perhaps, be traced; and the case of the only *one* of her five children who was affected, must be referred to the same category; while the exemption of the other four, though living in continual intercourse, completely overturns the doctrine of *contagion*, and is in perfect analogy with the facts observed in Scrofula and other diseases which are transmitted from parents to their posterity, affecting some and sparing others, according to circumstances not often very evident or easily explained. The case of Frances Savoy is not less decisive. She has a family of six children, and only *one*, a boy of eight years of age, is affected. She herself has had the disease four years and a half, in a severe form; "her husband sleeps with her every night, and is in perfect health." P. Savoy's case is a severe one. He has a wife and four children, but all of them are apparently healthy. The case of T. Robicheau bears equally on the same point. He is about fifteen years of age, and has been affected six years; and his uncle was recently carried off by it; marking, decidedly, *hereditary* transmission in that family.

It must, indeed, attract particular notice, as a singular feature in the "Report," that, as regards *Contagion*, so many of the facts related militate strongly against the conclusion which has been deduced from them, on this important question.

The affected district is situated between the Bay of Chaleur and Miramichi River, and the intercourse between it and Canada, Prince Edward Island, Nova Scotia, and the adjoining Counties of New Brunswick

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has been frequent and uninterrupted; and, though the disease was known to have occasionally existed in some parts along the Gulf shore at a date anterior to that assigned to it in the "Report," it had not, it would appear, been propagated to any of the above named places, nor been considered of that importance, or so frequent at the time, as to attract particular notice, or excite any serious alarm; and it is only now, though twelve cases terminated fatally, and, as appears by the "Report," after it had prevailed in Tracadie for a period of twenty-seven years, that the attention of the Legislature has been called to it, as fraught with public danger, and requiring rigid measures of prevention!

That the original source of the disease is to be detected in any geological peculiarity observable in the tract of country above mentioned, is not very probable; atmospheric causes are temporary, though general in their operation, giving to diseases an epidemic character; and the climate and cultivation of the soil, if not much improved, certainly are not deteriorated. The habits and mode of living of the French inhabitants in that part of the Province of New-Brunswick, it may also be remarked, have always been pretty much the same since its first settlement, with those in other parts of British North America, except, that the fish which constitutes almost their sole article of food, is not, perhaps, of the same wholesome quality as among some of their neighbours, owing to their poverty, which often prevents them from procuring the means necessary to preserve it for use. Some further facts, therefore, are wanting to render our conclusions as to the primary cause of its appearance in that locality satisfactory; and it is to be regretted that it could not now be traced further back than the case of Ursule Laudre in 1817.

The inhabitants of this district are of the Norman race, and descended from those Frenchmen who visited North America at a very early period of its settlement; and by whom, it can scarcely be doubted, the disease was brought to this part of the world; and the superb structure erected by Henry II. Duke of Normandy, at Caen, in 1160, for the reception of Lepers, (but long since appropriated to another use,) attests to this day the prevalence of the disease, in former times, in that country, where it had been, in a manner, naturalized since the time of the Crusades. It is of no small importance, therefore, as tending to throw a ray of light on this part of the enquiry, to know that Ursule's father was an "Acadian," that her mother was of "Caraquette," in the Bay of Chaleur, and her husband from "Tracadie" on the Gulf Shore; for it is also known that, the *Baie de Chaleur* and the north-east shores of *Acadie* were places where those adventurous navigators first encountered

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perils; and the disease may have even disappeared for a season, and at different periods from that early date sprung up again among their posterity, who appear still to inherit the original taint.

From the facts stated, it does not appear what has been the total number of cases from the year 1817 until the present time, although nineteen "*confirmed*" cases were found at the time of their visit; a proportion not exceeding, perhaps, that of any other disease, acute or chronic, which has appeared in this district during an equal period, reckoning from the average duration of the cases recorded in the Report; and it might, perhaps, be also ascertained that the deaths from any one of them, were not less numerous than those from Leprosy, which, as far as we are informed, amount to twelve.

Having thus taken a brief review of the principal data furnished by the Report, and on which the Commissioners found their opinion as to the *contagious* character of the disease, which alone could warrant recourse to the seclusion of the affected and the adoption of Lazaretto regulations and restrictions; it may not be deemed unprofitable or uninteresting, in a question which so deeply involves the comfort and safety of a large portion of society, to quote some *modern* authorities of the highest weight in the medical profession, in support of the opposite doctrine, or *non*-contagious nature of this loathsome disease, which is universally acknowledged to be *incurable*.

In an article in the "Dictionaire de Medicine et Chirurgie pratiques", by Bouillaud, vol. 5, p. 425, he says, "La contagion a été admise par certains auteurs dans une foule des cas ou elle n'existe reelment pas. Quel est le medecin observateur qui ajoute foi maintenant à tout ce qui a ètè debité, par exemple, sur la contagion de la Lepre, &c." And again, vol. 5, p. 435, when speaking of isolating the sick and of sanatary cordons, he expresses himself thus: "Les attaques dont cette mesure sanitaire à ètè l'objet dans ces derniers temps, paraissent bien fondeés, et le moment n'est peut-être pas eloignè, ou elle sera completement abandonneè." To this effect also, in an article in the same work, vol. 14, p. 19, by Ch. Londe, when speaking of the instructions relating to Quarantine, he says, "La Lepre arrive, dans *les Instructions*, én quatrieme ligne; mais parmi les gens qui ont bien observe cette maladie, aucun aujourdhui ne croit plus à sa proprieté contagieuse; les dispositions atroces, prises contre les lepreux, sont tombees en desuetude, et ces malades sont admis parmi les autres dans nos hôpitaux, sans que jamais on se soit aperçu de la transmission de leur affection."

In a paper in the Cyclopedia of Practical Medicine, on "Contagion," by Dr. Joseph Brown, we find the following remark:—"There are two

"other diseases which were *formerly* considered contagious, Lepra Græ-
"corum and Lepra Arabum (Elephantiasis.) The former is unquestion-
"ably not contagious; and from the observations made by the late Dr.
"Adams in the Lazar-house at Funchal, there is every reason to think
"the latter equally devoid of that quality."

*Numerous authorities might be quoted to the same purpose, but the above are conclusive; and the proofs of *hereditary* transmission are not less clear and cogent.

Various external causes have been mentioned as producing this disease; and there is a general assent as to the agency of bad food, especially putrid fish and vicinity to the sea shore. There is, however, in many instances, the greatest difficulty and uncertainty in accounting for its appearance; and the above, like those of a moral nature, of which a remarkable instance is recorded by the celebrated Alibert as coming under his own immediate care, (Precis, &c. vol. 2, p. 84) it is presumed, act chiefly by awakening a latent hereditary predisposition; and it must be confessed, some cases baffle all conjecture. The testimony of Sonini and Pallas is referred to by the same author, as opposed to the doctrine of *contagion*.

Having myself seen, some years ago, a well-marked case of this disease which leads to conclusions in perfect accordance with the opinions of those eminent men, I may be permitted, in this place, to bring it under notice. It occurred in a person about thirty years of age, a native of Antigua. He had laboured under it for a considerable length of time, and came to Nova-Scotia for the benefit of his health, where he married an interesting young lady about two years before I saw him. After this, he came to Saint John, and was under the care of Dr. Boyd and myself for about two months. His breath was extremely offensive, and his hands, face and legs were covered with blotches and tubercles of a livid, brownish colour; and some of them were in a state of ulceration. He afterwards went to New-Orleans, in a worse state than when he first left the West Indies; and died of this disease not long after his arrival. During the whole period of his illness, from the time of his marriage, his wife was most assiduous in her attentions to him, and occupied the same bed; but neither she nor any of the inmates of the boarding-house where they lodged for nearly twelve months, and with whom they had daily intercourse, ever shewed the least mark of the disease. He had no children; and after his death, his wife returned to Nova-Scotia, where she has continued to enjoy perfect health.

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* Rayer, Bateman, Alibert, Robinson, T. Heberden, Ainsley.

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In the course of the above remarks, I have purposely abstained from all opinions respecting the operation of contagious miasmata, or the manner of their introduction into the blood, as foreign to the object of the present enquiry; and as chemistry has, hitherto, thrown but feeble light on the nature of their elementary constituents, or the changes they effect on the circulating fluids.

Several important organs undergo a morbid alteration of structure during the progress of this disease; but, as its pathology is unconnected with the question at issue, it need not now engage our attention.

It is generally admitted that Pulmonary Consumption is, according to the common acceptation of the term, an hereditary disease, usually developed by the action of exciting causes. In some countries, it is also deemed contagious; and the houses which have been occupied by persons who die of this complaint, are always left deserted. In New-Brunswick, its occurrence is very frequent; and, though not deemed contagious, it may certainly be pronounced *incurable*. So far, the parallel between it and Leprosy is strictly correct; but surely, it would not be recommended that those persons labouring under Pulmonary Consumption throughout the Province should be torn from their families, and left to die in a Lazaretto; nor can it be imagined that any such measure would be proposed to prevent the continuance of so great a scourge of the human race; as it is sufficiently evident, how fruitless the attempt must be, by the removal of a few, to arrest the progress of a disease whose germ, unhappily, is but too widely spread among mankind, and whose extinction is beyond the reach of legislative power.

During the prevalence of the Asiatic Cholera in Europe, erroneous opinions regarding its contagious character led to the adoption of similar measures of prevention; but experience has since taught us how useless and unnecessary they were, and how injurious to the interests of society; and the novelty of the disease among us, and its still inexplicable nature, afford the only vindication of the course pursued during that period of general consternation. In no part of Europe was Leprosy so prevalent at one time as in France, from the eleventh to the sixteenth century. It is now chiefly confined to the tropical and equatorial regions, being rarely met with in Europe since the seventeenth century; and the advanced and more refined state of society accounts for its gradual disappearance; while greater experience has banished all dread of its supposed contagion, and opened their noble hospitals to the admission of Lepers, without distinction, among other patients; and numerous Lazarettos of great extent have long been converted into retreats for the aged and infirm, or like purposes of general philanthropy and benevolence.

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I trust it will appear, from what I have said, and the authorities I have referred to, that any measures of prevention which require seclusion of the sick, much less the severity of Lazaretto regulations, are not warranted, on this occasion, by the facts on which their adoption is grounded; and as their uselessness and impolicy have nearly expunged them from the code of civilized nations.

The formation of any hospital *exclusively* for the reception of leprous patients is also objectionable, as entailing an endless expense on the Province; especially if County Hospitals already exist, or similar establishments, into which, as experience has abundantly shewn, they may be received without the remotest injury to other patients; and of which, the "Report" itself furnishes ample proof. The disease being incurable, little good is to be expected from hospital treatment; which, at best, could only be palliative. Much, however, may be done to obviate some of the causes which render the human body liable to various diseases arising from noxious emanations, as well as from atmospheric influence and hereditary predisposition, by inculcating the necessity of a proper hygiene throughout the French population of that district; by which the constitution may be enabled to resist the influence of external agents; and withont which, it is to be feared, the disease will finally cease only with the extinction of the race.

With this view, enquiry should be made by the Clergymen of the district to which the disease is confined, into the habits and means of subsistence of the several families under their pastoral care,—their occupations, their clothing, their ordinary food, and the state of their habitations; and according to their age, sex and number of children, such pecuniary aid should be given as would relieve their wants, stimulate their industry, and, not less important, dispel despondency and grief, by shewing them that a general interest had been awakened in their favour, and that the present evil was not altogether beyond the reach of relief. The appropriations of money from the public purse for this humane and benevolent purpose should, for obvious reasons, be entrusted to the hands of the Roman Catholic Bishop of New-Brunswick and the Pastors of the district; to be distributed at their discretion and responsibility, rendering an account of the disbursements to the Executive Government of the Province, which alone should have power to controul them.

Saint John, (New-Brunswick,) May 15th, 1844.